**[Game Overview]**

*Unbelievable Conflict* is a 2D third person multiplayer shooter game. The core gameplay will be a one-vs-all Deathmatch. Two to four players will be dropped into a map where they will have to try and kill each other. The first person to reach a predetermined number of kills wins the match. The matches will also have the option to be time limited. If the time runs out before any player can reach the necessary kill count, then the player with the highest number of kills wins the match.

Before any gameplay actually starts, the player will be faced with the main menu. In the main menu there will be the usual options of muting the sound, character selection and getting help with the controls, but there will also be some options that will be slightly different from a typical single player game. There will be a choice of hosting a game or joining a game. If the player decides to host the game he or she will be able to select which map to play on, the number of kills to win the match, the time limit for that match, and the number of players. The other choice will be to join a game. The player will have to input the correct IP address of a server that is hosting a game to join. Both host and joining party will have to pick a name for themselves. The match doesn’t begin until the correct number of players have joined the game.

The character selection will offer the player a little bit of customizability. There will be three classes to choose from ranging from fast movement speed but low health/armor to slow movement speed but with high health/armor.

The game will be played with a keyboard and mouse. The mouse is used to control the aiming and firing of the weapon. The keyboard will be used to control the movement of the player, as well as switching weapons, and accessing an in-game menu and statistics.

The visual entities found in the gameplay are:

The Players: 2-4 players that will be killing each other

The Weapons: Three different kinds of weapons: instantaneous projectile (lasers, or bullets), slow projectile (grenade launcher), and melee (sword). The player will be able to switch between them.

Power-ups: affects the individual player (personal shield) or the entire map (gravity inversion)

We believe this game will be interesting because it will be fast-paced, competitive, and have some unique aspects to the game that are generally not found in ordinary shooter games. The maps will have different characteristics such as variable gravity, and power-ups specific to the map.

**[Development Strategy]**

To begin with, we will mostly be starting from scratch. This way our code will be more organized and well developed. However we will be borrowing methods and techniques learned from the previous projects, such as a rudimentary physics implementation, and collision detection. We will begin with the development of the all of the visual entities in the game, and their interactions with each other. Then we will move on to integration of the basic game and networking between the server and clients. This will be our major sticking point in our low-bar goals. Since we do not have much experience with networking games, this is where we will spend a lot of time implementing and debugging. By taking care of the basic implementation of the game, such as graphics, controls, and physics first, it will allow us to spend more time ironing out the problems with networking. In the beginning, the networking aspects will be done by one individual in the sense that the research and small scale test will only need to be done by one person. When the time comes for the networking integration with the rest of the game, the whole team will be working on any research, implementation, and fixing bugs.

Milestone 1: November 25. Controls, physics, collision detection for the game should be implemented. Graphics and sounds should be nearing completion. More features may involving graphics and sounds may still be in the works.

Daniil Martyn will be working on the controls, physics, collision detection and graphics toward milestone 1 because this is similar to his previous project.

Nikolay Arabadzhi will be working on acquiring sound and researching networking and small scale tests.

Milestone 2: This will be the alpha due date, December 2. The graphics, sounds, controls and physics for the game should be done. The networking integration should be started, a very basic game may be able to be played.

Daniil Martyn will finish the graphics, controls, and physics for the game.

Nikolay Arabadzhi will finish the audio aspects of the game and begin integration of networking.

Milestone 3: December 16 showcase. The entire game, is completed and polished. Everything – gameplay, graphics, sounds, networking, physics, and collision detection works as expected.

Both team members will be working on ironing out problems, fixing bugs, and adding final polish to the game.

**[Technical Showpieces]**

Our major technical showpiece will be networking.

**[High Bar]**

**[Low Bar Checklist]**

* **Avatar Movement**: the user’s selected character will be able to move left, right, and jump up to platforms. The avatar will not be able to clip/pass through platforms and any objects. The avatar will not be able to go beyond the limits of the map.
* **Avatar Shooting:** the avatar will be able to use three different weapons. Each weapon will be able to be aimed with the mouse.
* **Environment:** the map will be bigger than the screen size. To reach the unseen portions of the map, the screen will be able to move with the character.
* **Statistics:** the game will keep track of the kills and deaths of each player in the game. The statistics will able to be accessed during game play, and shown at the end of a match.
* **Network:** the game will have multiplayer capability through the use of LAN. Two to four players will be able to play on the same server by connecting from separate computers.
* **Power-Ups:** there will be map-specific power-ups that produce temporary effects on the individual player, or the entire map.